



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/586,928

08/24/2006

Richard C. Garner

04P01317

8249

24252 7590 03/20/2008

OSRAM SYLVANIA INC  
100 ENDICOTT STREET  
DANVERS, MA 01923

EXAMINER

RALEIGH, DONALD L

ART UNIT

PAPER NUMBER

2879

MAIL DATE

DELIVERY MODE

03/20/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/586,928	<b>Applicant(s)</b> GARNER ET AL.	
	<b>Examiner</b> DONALD L. RALEIGH	<b>Art Unit</b> 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/24/2006, 09/28/2007</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 2879

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Response to Amendment***

The Amendment, filed on December 26,2007 has been entered and acknowledged by the Examiner.

Claims 1-13 are pending in the instant application.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8,10 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Enokida et al (US Patent No. 3,549,937).

Regarding Claim 1, Enokida discloses, at least in Figures 2 and 3,

A low-pressure discharge lamp [abstract line 1] having an essentially tubular discharge vessel [Fig.2 (1) and Col.2, lines 19-20] which consists of glass [Col.2,line 20] and is sealed in a gas-tight manner at the ends,[Col.1, lines 41-44] having a filling comprising a noble gas mixture [Col.1, line 43, rare gas= inert gas = noble gas] and possibly mercury [Col.2, line16] and possibly having a fluorescent coating on the inner wall of the discharge vessel [Col.2, lines 18-20] in each case two power supply lines [Fig.3, (31,32) and Col.2, lines 49-50] being fused into the two ends of the discharge vessel [Fig.3 (30) and Col.2, line 50 thru the stem] in a gas-tight

Art Unit: 2879

manner [Col.1, lines 41-43] and running essentially parallel to the longitudinal axis of the discharge vessel [See Fig.2 5 & 6 parallel to glass envelope and Fig.3 31 & 32 (not shown in envelope)] in this section, a filament electrode [Fig. 3, (33) Col.2, lines 52] which runs essentially transversely with respect to the longitudinal axis of the discharge vessel,[shown in Fig.3 running transversely] being fixed at the inner end of each of said two power supply lines [Fig.3 (33) between (31) & (32)] characterized in that, in order to increase the switching strength of the lamp during cold starting operation, at least one further electrode [Fig.3, (34) & (35) and Col.2, line 54 (wire anodes)] consisting of a conductive material is arranged in the region between the filament electrode [Fig.3, (33)] and the adjoining end of the discharge vessel [Fig.3 shows them between the filament (33) and the end of the tube (30) inserts in the end of the tube ], one end of this further electrode [34,35] being electrically connected to one of the two power supply lines [31,32 in Fig.3].

Regarding Claim 2, Enokida discloses, at least in Figure 3, characterized in that, in a vertical view of the plane formed by the two power supply lines [Fig.3 (31, 32)] and the filament electrode [Fig.3 (33)], the further electrode [34, 35] lies largely between the two power supply lines [Fig.3 shows them between power lines 31 & 32].

Regarding Claim 3, Enokida discloses, at least in Figure 3, that the conductive material of the further electrode [34,35] has a high coefficient for secondary electron emission.[Applicant's spec. teaches that nickel, ruthenium and tungsten qualify (page 4, lines 1-6)].[Fig.3, shows getter material (36 & 37) on wire anodes (34 & 35). Col.2, lines 67-69 gives nickel as one the possible getter materials]

Art Unit: 2879

Regarding Claim 4, Enokida discloses, at least in Figure 3, that the conductive material of the further electrode [34, 35] is nickel and/or ruthenium. [Col.2, lines 67-69 getter material on anodes is nickel]

Regarding Claim 5, Enokida discloses that the conductive material of the further electrode [34, 35] is tungsten. [Col.2, line 72]

Regarding Claim 6, Enokida discloses, at least in Figure 3, that the further electrode [34, 35] comprises a wire. [Col.2, line 55, wire anodes]

Regarding Claim 8, Enokida discloses, at least in Figure 3, that the further electrode [34, 35] extends essentially parallel to the axis of the filament electrode [33] from the power supply line [31, 32] to which it is electrically connected in the direction of the other power supply line. [Fig.3 shows this arrangement]

Regarding Claim 10, Enokida discloses, at least in Figure 3, that the free end of the further electrode [34, 35] is bent back in the direction of the filament electrode [33]. [Fig.3 show the electrodes 34,35 protruding from the supply wires (31,32) in a direction away from the filament (33) and then bending back in a direction toward the filament]

Regarding Claim 12, Enokida discloses, at least in Figure 3, that the further electrode [34,35] is fixed to the power supply line [31,32] in a position in which it is rotated through an angle of less than or equal to  $45^{\circ}$  in relation to the axis of the filament electrode. [Fig.3 obviously shows the electrodes fixed in a position less than 45 degrees in relation to the axis of the filament. The

Art Unit: 2879

axes of the filament and further electrode are essentially parallel. Also, the attachment point of the further electrode and the filament are essentially parallel.]

Regarding Claim 13, Enokida discloses, at least in Figure 3, that the lamp has two further electrodes [Fig.3, (34, & 35)], in each case one end of each further electrode [34, 35] being connected to one of the two power supply lines [31, 32] of the same filament electrode [33] such that a further electrode [34, 35] is electrically connected to each of the two power supply lines [31, 32].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Enokida et al. (US Patent No. 3,549,937) in view of Chow et al (US Patent No. 5,905,339).

Regarding Claim 7, Enokida fails to exemplify the teachings of Claim 6: characterized in that the wire has a wire diameter of between 50 and 150  $\mu\text{m}$ . Chow teaches : (Col. 6, line 19-21) nickel wire diameters of 125 to 250 $\mu\text{m}$ , which falls in the above range ,that have been found to be satisfactory for attaching to hollow ferrules with resistance or laser welds (Column 6, lines 15-21). This is also being used in a gas discharge lamp (abstract, line 1).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate the teachings of Chow into the invention of Enokida and provide a wire electrode

Art Unit: 2879

of a diameter between 50 and 150um because this is a range that has been found to be satisfactory for attaching to hollow ferrules with resistance or laser welds (Column 6, lines 15-21).

Reference Claim 9, Enokida fails to exemplify the teachings of Claim 8 characterized in that the further electrode [34,35] extends from the power supply line [31,32] to which it is electrically connected for 40 to 60% of the distance between the two power supply lines [31,32] in the direction of other power supply line [31,32].

[Fig.3 of Enokida shows the electrodes (34 & 35) extending more than 40% of the distance between the two supply electrodes.

Although, the specific requirement of 60% is not taught in the prior art, it is obvious that you would not want the further electrodes to extend close enough to the opposite supply lead to create an arc.

In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984) cert. denied, 469 U.S.830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

### ***Allowable Subject Matter***

Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2879

Regarding Claim 11, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in Claim 11, and specifically comprising the limitation of "the free end of the further electrode has a distance of  $(0.2 - 1) \times R_{\text{inner tube}}$  from the axis of the filament electrode,  $R_{\text{inner tube}}$  being the inner radius of the discharge vessel [1] in this section of the discharge vessel [1]".

### ***Response to Arguments***

Applicant's arguments filed December 26, 2007 with respect to claims 1-10 and 12-13 have been fully considered but they are not persuasive.

In regards to applicant's contention that the prior art reference of Enokida et al (US Patent No. 3,549,937) fails to disclose the limitation of Claim 1 that the at least one further electrode is arranged in the region between the filament (5)(Fig.3) and the adjoining end of the vessel (30) is respectively refuted. It is obvious from Figure 3 of Enokida that the straight portions of each further electrode (34 and 35) are attached to the power supply lines (31 and 32) below the attachment location of the filament (33), and therefore, are between the filament (33) and the adjoining end of the vessel (30). Furthermore, these straight sections are shown coated with getter so that these portions would qualify as the further electrode. Accordingly, the teachings of Enokida meet the structural limitations as stated in claim 1.

Furthermore, the applicant's claim that Claim's 2-8, 10 and 12-13 are therefore allowable is also refuted based upon the rejection of Claim 1, as stated, and the dependency of the above claims on Claim 1.

In regards to applicant's contention that the prior art reference of Enokida as modified by Chow in Claim 9 fails to teach or suggest a "further electrode extending from the power supply to which it is electrically connected for 40 to 60% of the distance between the two power supply



Art Unit: 2879

lines in the direction of the other power supply line” is respectfully refuted. Applicant’s statement that the Examiner’s contention was that “you would want the further electrodes to extend close enough to the opposite supply lead to create an arc” is erroneous. Examiner’s statement was the opposite of this remark (reread the rejection of Claim 9). The rejection stands that this distance would be a choice made by one of ordinary skill in the art. Therefore, the rejection of Claim 9 stands.

Applicant’s arguments filed December 26, 2007 with respect to claim 11 has been fully considered and is persuasive. Applicant’s statement that the structure of Enokida’s discharge lamp and that of Mastuno is significantly different is correct. Furthermore, the motivation to combine the teachings of the two with respect to Claim 11 would not be appropriate. The rejection is withdrawn.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2879

### ***Conclusion***

Examiner's note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Raleigh whose telephone number is 571-270-3407. The examiner can normally be reached on Monday-Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Nguyen can be reached on 571-272-2402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Donald L Raleigh/  
Examiner, Art Unit 2879

Application/Control Number: 10/586,928

Page 10

Art Unit: 2879

/Mariceli Santiago/

Primary Examiner, Art Unit 2879